

**TITLE: RF TRANSMITTER ARCHITECTURE FOR CONTINUOUS
SWITCHING BETWEEN MODULATION MODES**

5

ABSTRACT OF THE INVENTION

The present invention provides a radio transmitter having a digital modulator that further includes logic for continuous amplitude and continuous phase modulation switching in an RF transmitter intended to support both frequency shift keying (FSK) and phase shift keying (PSK) modulation techniques in a smooth and continuous manner that does not violate spectral mask requirements. The invention supports continuous modulation switching both ways, i.e., from FSK to PSK and from PSK to FSK. In operation, the radio transmitter initially operates in a first communication mode, transmitting communication signals to a remote agent according to a first modulation technique at a first data rate and then transitions to the second modulation type at a second data rate without spectral mask violation.

15